

510(k) SUMMARY

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR §807.92.

The assigned 510(k) number is:_____.

1. Submitter's Identification:

Microlife Intellectual Property GmbH, Switzerland
Espanstrasse 139
9443 Widnau / Switzerland

Date Summary Prepared: June 16, 2011

Contact: Mr. Gerhard Frick
Vice President of Technical and Service
Microlife Intellectual Property GmbH, Switzerland
Tel: +41 79 216 0070
E-Mail: gerhard.frick@microlife.ch

2. Name of the Device:

Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI)

Regulation Number: 21 CFR Part 870.1130
Regulation Name: Non-Invasive Blood Pressure Measurement System
Regulatory Class: II
Product Code: DXN

3. Information for the 510(k) Cleared Device (Predicate Device):

- a. Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office (Twin200), K082357, Microlife Intellectual Property GmbH.
- b. Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model BP3MQ1-2D, K080337, Microlife Intellectual Property GmbH.
- c. VP-2000/1000, K013434, Colin Corporation.

4. Device Description:

Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) is designed to measure systolic and diastolic blood pressure, pulse rate and calculate Pulse Pressure (PP), Mean Arterial Pressure (MAP) and Ankle Brachial Index (ABI) of an individual by using a non-invasive technique in which one (or two) inflatable cuff(s) is (are) wrapped around the single (or dual) upper arm(s) and one inflatable cuff is wrapped around the ankle. Our method to define systolic and diastolic

pressure is similar to the auscultatory method but use two resistive pressure sensors rather than a stethoscope and mercury manometer. The sensors convert tiny alterations in cuff pressure to electrical signals, by analyzing those signals to define the systolic and diastolic blood pressure and calculating pulse rate, Pulse Pressure (PP), Mean Arterial Pressure (MAP) and Ankle Brachial Index (ABI), which is a well - known technique in the market called the "oscillometric method".

The device has <<SCREEN>>, <<ROUTINE>> and <<ABI>> measurement modes and has atrial fibrillation detection function, inflation pressure setting function, measurement intervals setting function etc. In addition, the device can be used in connection with your personal computer (PC) running the WatchBP Analyzer Office ABI software. The memory data can be transferred to the PC by connecting the monitor with the PC via cable.

The <<SCREEN>> mode is selected to complete fully-automated triple measurements on both arms according to recommended ESH/AHA blood pressure measurement protocols for a patient's first office visit.

The <<ROUTINE>> mode is selected to perform automated triple measurements on the preferred arm for prompt and accurate office measurements.

The <<ABI>> mode is selected for Ankle Brachial Index pressure measurement. Select the lateral with the higher blood pressure value according to the measurement result of <<SCREEN>> mode.

The device detects the appearance of atrial fibrillation during measurement and the atrial fibrillation symbol "AF" is displayed on the LCD screen if any atrial fibrillation signal has been detected.

5. Intended Use:

The Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) is a device intended to measure the systolic and diastolic blood pressure, pulse rate and calculate Pulse Pressure (PP), Mean Arterial Pressure (MAP) and Ankle Brachial Index (ABI) of an adult individual by using a non-invasive oscillometric technique in one (or two) inflatable cuff(s) is (are) wrapped around the single (or dual) upper arm(s) and one inflatable cuff is wrapped around the ankle.

The device detects the appearance of atrial fibrillation during measurement and gives a warning signal with the reading once the atrial fibrillation is detected.

The device can be used in connection with your personal computer (PC) running the WatchBP Analyzer Office ABI software. The memory data can be transferred to the PC by connecting the monitor via cable with the PC.

6. Comparison to the 510(k) Cleared Device (Predicate Device):

The modified device model WatchBP Office ABI (TWIN200 ABI) and the predicate device model WatchBP Office (Twin200) use the well-known oscillometric method within the software algorithm to determine the systolic and diastolic blood pressure and pulse rate. Upper arm cuff(s) is (are) inflated automatically, deflation rate is

controlled by one (or two) factory set exhaust valve(s) and the deflation pressures are transferred via tubing to one (or two) sensor(s).

The solely differences between the two models are the intended use, measurement modes name, sensor type, cuff bladder material, atrial fibrillation detection function, Ankle Brachial Index (ABI) calculating function and data transferring method etc.. However, the differences do not affect the accuracy and normal use of this device based on the internal clinical tests comparing different sensors and cuff bladder materials.

Atrial fibrillation detection function is same with what is used in predicate device model BP3MQ1-2D, with 510(k) cleared number K080337.

The upper arms and ankle measurements and Pulse Pressure (PP) and Mean Arterial Pressure (MAP) and Ankle Brachial Index (ABI) automatically calculation functions are similar with what was used in predicate device VP-2000/1000, with 510(k) cleared number K013434.

7. Discussion of Non-Clinical Tests Performed for Determination of Substantial Equivalence are as follows:

Testing information demonstrating safety and effectiveness of the Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) in the intended environment of use is supported by testing that was conducted in accordance with the FDA November 1993 Draft "Reviewer Guidance for Premarket Notification Submissions", DCRND, which outlines Electrical, Mechanical and Environmental Performance requirements.

The following testing was conducted:

- a. Reliability Test - Storage test
- b. Reliability Test - Operating test
- c. Reliability Test - Vibration test
- d. Reliability Test - Drop test
- e. Reliability Test - Life test
- f. EMC Test
- g. IEC 60601-1 Safety Test

None of the testing demonstrated any design characteristics that violated the requirements of the Reviewer Guidance or resulted in any safety hazards. It was our conclusion that Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) tested met all relevant requirements of the aforementioned tests.

8. Discussion of Clinical Tests Performed:

The subject modified device Model WatchBP Office ABI (TWIN200 ABI) is from the technical point of view, identical to the blood pressure monitor Model WatchBP Office (Twin200). The differences between them do not relate to blood pressure measurement technology so the clinical accuracy in terms of blood pressure

detection will not be affected. Therefore repeated clinical testing in accordance with ANSI/AAMI SP10 is therefore not required.

9. Software information:

Software validation was conducted in accordance with a moderate level of concern designation in accordance with the FDA November 2005 document "Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices". In addition, since our device requires the use of off-the-shelf software to operate the PC-link function, we adhered to the FDA September 1999 document "Guidance for Off-The-Shelf Software Use in Medical Devices".

10. Conclusions:

We have demonstrated that there are no significant differences between the Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) and the predicate devices, Model WatchBP Office (Twin200) and Model BP3MQ1-2D, in terms of safety and effectiveness based on electrical, mechanical and environmental test results per the FDA DCRND November 1993 Draft "Reviewer Guidance for Premarket Notification Submissions", and the ANSI/AAMI Voluntary Standard, SP10: 2008.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
10903 New Hampshire Avenue
Document Control Room - WO66-G609
Silver Spring, MD 20993-0002

DEC - 5 2011

MicroLife Intellectual Property GmbH, Switzerland
c/o Ms. Susan D. Goldstein-Falk
Official Correspondent
mdi Consultants, Inc.
55 Northern Boulevard, Suite 200
Great Neck, NY 11021

Re: K112845

Trade/Device Name: MicroLife Upper Arm Automatic Digital Blood Pressure Monitor,
Model WatchBP Office ABI (TWIN200 ABI)

Regulatory Number: 21 CFR 870.1130

Regulation Name: Non-invasive Blood Pressure Measurement System

Regulatory Class: II (two)

Product Code: 74 DXN

Dated: September 28, 2011

Received: September 29, 2011

Dear Ms. Goldstein-Falk:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

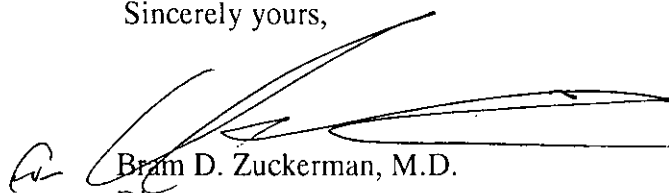
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Bram D. Zuckerman, M.D.
Director
Division of Cardiovascular Devices
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosure

Exhibit B

Indications for Use

510(k) Number (if known): _____

Device Name: Microlife Upper Arm Automatic Digital Blood Pressure Monitor,
Model WatchBP Office ABI (TWIN200 ABI)

Indications For Use:

The Microlife Upper Arm Automatic Digital Blood Pressure Monitor, Model WatchBP Office ABI (TWIN200 ABI) is a device intended to measure the systolic and diastolic blood pressure, pulse rate and calculate Pulse Pressure (PP), Mean Arterial Pressure (MAP) and Ankle Brachial Index (ABI) of an adult individual by using a non-invasive oscillometric technique in one (or two) inflatable cuff(s) is (are) wrapped around the single (or dual) upper arm(s) and one inflatable cuff is wrapped around the ankle.

The device detects the appearance of atrial fibrillation during measurement and gives a warning signal with the reading once the atrial fibrillation is detected.

The device can be used in connection with your personal computer (PC) running the WatchBP Analyzer Office ABI software. The memory data can be transferred to the PC by connecting the monitor via cable with the PC.

Prescription Use X
(Part 21 CFR 801 Subpart D)AND/OR Over-The-Counter Use _____
(21 CFR 801 Subpart C)(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE
OF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)


(Division Sign-Off)
Division of Cardiovascular DevicesPage 1 of 1 510(k) Number K112845